

**SURFACE ACOUSTIC WAVE IDENTIFICATION TAG HAVING ENHANCED  
DATA CONTENT AND METHODS OF OPERATION AND MANUFACTURE THEREOF**

**ABSTRACT OF THE DISCLOSURE**

A surface acoustic wave (SAW) identification tag and methods of operating and manufacturing the tag. In one embodiment, the tag includes: (1) a piezoelectric substrate having a SAW transducer located thereon, (2) a group of slots arranged by both pulse position and phase position on said substrate; and (3) a number of reflectors distributed among the slots such that the reflectors encode a number by both pulse position and phase position.